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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,705	11/21/2003	Vadim Sheinin	YOR920030561US1 (17147)	2960
23389 7590 04/05/2007 SCULLY SCOTT MURPHY & PRESSER, PC 400 GARDEN CITY PLAZA SUITE 300 GARDEN CITY, NY 11530			EXAMINER BLOOM, NATHAN J	
			ART UNIT 2624	PAPER NUMBER

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/05/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/719,705

Applicant(s)

SHEININ, VADIM

Examiner

Nathan Bloom

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☒ Claim(s) 19 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 01/02/2004.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Objections*

1. Claim 19 is objected to because of the following informalities: Claim 19 is dependent on itself and based on previous claims appears that it should be dependent on instant claim 18. In interest of furthering the prosecution of the case instant claim 19 will be considered as dependent on instant claim 18. Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, 5, and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pittel (US 2003/0095708) in view of Fujisaki (US 6011865).

Instant claim 1: A dynamic handwriting recognition system for a pervasive device comprising:  
a touch screen device [*Fujisaki: lines 51-56 of column 1, the use of stylus/digitizer tablets was well known to one of ordinary skill in the art*];

a stylus means enabling a user to write on said touch screen, said touch screen generating dynamic information associated with stylus writing [*Fujisaki: lines 51-56 of column 1, the use of stylus/digitizer tablets was well known to one of ordinary skill in the art*];

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a digital image capture means mounted in said pervasive device for obtaining images of said stylus as said user writes on said touch screen; means for processing said obtaining images and extracting non screen-related information associated with stylus manipulation by said user

*[Pittel: Teaches in Fig. 1-2, 7-8, 11, paragraphs 0003, 0004 (tilt of pen relative to writing surface), 0026, the use of a digital camera on a mobile device to perform handwriting recognition. It would have been obvious to one of ordinary skill in the art to use the digital camera as disclosed by Pittel to measure the pen tilt, which is known in the art as a parameter used to increase the accuracy of the handwriting recognition];*

and handwriting recognition means receiving both said dynamic touch screen information and extracted non touch screen-related information from said processed images for recognizing writing of said user, wherein improved handwriting recognition is achieved *[Fujisaki: lines 25-40 column 1, teaches the combining of dynamic information (pen tilt as evidenced by Pittel, paragraph 0074 Dresevic US 2002/0049796, and paragraph 0060 Schiller US 2002/0031243) with the static touch screen information to improve recognition accuracy.]*.

Instant claim 2: The dynamic on-line handwriting recognition system as claimed in claim 1, wherein said extracted non screen-related information include tilt parameters associated with stylus manipulation *[See analysis of instant claim 1 wherein Pittel, Dresevic, and Schiller have disclosed the use of pen tilt as parameter of stylus manipulation]*.

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Instant claim 5: The dynamic handwriting recognition system as claimed in claim 2, wherein said digital image capture means obtains images in a plane perpendicular to a plane defined by said touch screen device [*Pittel Fig. 1 and 2*].

Instant claim 9: A method for dynamically performing handwriting recognition in a pervasive device including a touch screen device and a stylus means enabling a user to write on said touch screen device, said method comprising the steps of:

a) generating dynamic information associated with stylus writing [*Fujisaki: lines 51-56 of column 1, the use of stylus/digitizer tablets to record handwriting information was well known to one of ordinary skill in the art*];

b) mounting a digital image capture means in said pervasive device that is adapted to obtain images of said stylus as a user writes on said touch screen [*Pittel: Teaches in Fig. 1-2, 7-8, 11, paragraphs 0003, 0004 (tilt of pen relative to writing surface), 0026, the use of a digital camera mounted on a mobile device to perform handwriting recognition. It would have been obvious to one of ordinary skill in the art to use the digital camera as disclosed by Pittel to measure the pen tilt, which is known in the art as a parameter used to increase the accuracy of the handwriting recognition*];

c) processing said obtaining images and extracting non screen-related information associated with stylus manipulation by said user [*see rejection of step b*]; and

d) recognizing writing of said user utilizing both said dynamic touch screen information and extracted non touch screen-related information from said processed images, wherein improved handwriting recognition is achieved [*Fujisaki: lines 25-40 column 1, teaches the combining of*

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*dynamic information (pen tilt as evidenced by Pittel, paragraph 0074 Dresevic US 2002/0049796, and paragraph 0060 Schiller US 2002/0031243) with the static touch screen information to improve recognition accuracy.].*

Instant claim 10: The method for dynamically performing handwriting recognition as claimed in claim 9, wherein said extracted non screen-related information include tilt parameters associated with stylus manipulation [*See analysis of instant claim 1 and 9 wherein Pittel, Dresevic, and Schiller have disclosed the use of pen tilt as parameter of stylus manipulation*].

Instant claim 13: The method for dynamically performing handwriting recognition as claimed in claim 10, wherein said digital image capture means is mounted to obtain images in a plane perpendicular to a plane defined by said touch screen device [see rejection of instant claim 5].

The limitations of instant claims 17-20 are encompassed by the limitations of instant claims 1-2 and 4-5. Thus instant claims 17-20 are rejected as per the rejections of instant claims 1-2 and 4-5.

3. Claims 1-4, 6-8, 17-18, and 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pittel (US 2003/0095708) in view of Fujisaki (US 6011865) and Hansen (US 5534893).

Instant claim 3: The dynamic handwriting recognition system as claimed in claim 1, wherein said pervasive device comprises a Personal Digital Assistant (PDA) device [*Pittel discloses the use of*

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*the camera on a portable electronic device in paragraph 0004 as is depicted in Fig. 4 and 8, and further discloses that it can be a PDA in paragraph 0070. Furthermore, the use of cameras and touch pads on a portable electronic device such as a PDA was known in the art as is disclosed by Hansen by objects 11 and 12 of Figure 12 and lines 5-13 of column 7].*

Instant claim 4: The dynamic handwriting recognition system as claimed in claim 2, further including a touch screen control device for generating coordinates of said stylus writing upon said touch screen [*Hansen: Fig. 4 and lines 32-49 of column 8 has disclosed the generation of coordinates based on the stylus writing on the screen. Given that Hansen teaches the use of a touch screen and stylus it would have been obvious to one of ordinary skill in the art to generate this information on any touch screen device.*]

Instant claim 6: The dynamic handwriting recognition system as claimed in claim 4, wherein said pervasive device implements pattern recognition means for extracting said non touch screen-related pen information [*Pittel: paragraph 0004 "The software is configured to apply pattern recognition to signals from the digital cameras"*].

Instant claim 7: The dynamic handwriting recognition system as claimed in claim 6, wherein said stylus means includes elements enabling recognition by said pattern recognition means [*Pittel: Fig 7 paragraph 0065 "The black (or other colored) tip of the marker would then be automatically tracked by the same phone and camera". Furthermore, it has been known to one*

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*of ordinary skill in the art to track an object based on its own properties or a particular pattern (i.e. pattern recognition) placed on the object.].*

Instant claim 8: The dynamic handwriting recognition system as claimed in claim 7, wherein said elements enabling pattern recognition includes colored segments in a structure known to said pattern recognition means [*Pittel: As per rejection of instant claim 8 the tip can be black or colored hence distinguishing it from the lighter colored writing surface by the different color segments.*].

Instant claim 11: The method for dynamically performing handwriting recognition as claimed in claim 9, wherein said pervasive device comprises a Personal Digital Assistant (PDA) device [*See rejection of instant claim 3*].

Instant claim 12: The method for dynamically performing handwriting recognition as claimed in claim 10, wherein step a) of generating dynamic information includes the step of generating coordinates of said stylus writing upon said touch screen [*see rejection of instant claim 4*].

Instant claim 14: The method for dynamically performing handwriting recognition as claimed in claim 12, wherein said processing step c) includes implementing pattern recognition means for extracting said non touch screen-related pen information [*see rejection of instant claim 6*].



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Instant claim 15: The method for dynamically performing handwriting recognition as claimed in claim 14, further including the step of facilitating stylus recognition by a pattern recognition device [*see rejection of instant claim 7*].

Instant claim 16: The method for dynamically performing handwriting recognition as claimed in claim 15, wherein said stylus recognition is facilitated by including colored segments in said stylus that is known to said pattern recognition device.

The limitations of instant claims 21-23 are encompassed by the limitations of instant claims 6-8. Thus instant claims 21-23 are rejected as per the rejections of instant claims 6-8.

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- *Dresevic US 2002/0049796 paragraph 0074*
- *Schiller US 2002/0031243 paragraph 0060*

### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Bloom whose telephone number is 571-272-9321. The examiner can normally be reached on Monday through Friday from 8:30 am to 5:00 pm (EST).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jingge Wu, can be reached on 571-272-7429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nathan Bloom



JINGGE WU  
SUPERVISORY PATENT EXAMINER